



United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

'Riley'

Showy Partridge Pea

Chamaecrista fasciculata (Michx.) Greene

A Conservation Plant Release by USDA NRCS Manhattan Plant Materials Center, Manhattan, KS



Figure 1. Showy partridge pea in bloom. Photograph by Alan Shadow, East Texas PMC.

'Riley' showy partridge pea (*Chamaecrista fasciculata*) is a cultivar released in 2007 by the Manhattan Plant Materials Center. Riley was originally released in 1999 as Riley Germplasm a source identified release. It was subsequently evaluated here and at other PMC's and enough data was collected to re-release the material as a cultivar based on its superior performance.

Description

'Riley' showy partridge pea is recommended for use in critical area seeding treatments, roadside plantings, wildlife habitat improvement, and park and recreational area beautification and stabilization. Riley is an annual, native, warm-season legume. Plants are from one to three feet tall with stems that are erect and branching. Its bright yellow flowers are about an inch wide and occur in clusters of two to seven. The compound leaves have a distinct gland along the stalk and 12 to 36 linear leaflet

pairs. The fruit is a flat, linear pod that will burst open when mature to disperse the dark brown, flat, triangular shaped seed units. Riley has approximately 64,500 seed units per pound of seed.

Source

Seeds of Riley showy partridge pea were collected in 1977, by USDA Soil Conservation Service Plant Materials Center personnel along Riley County 901 in Ashland Bottoms, Riley County, Kansas. The USDA Plant Hardiness Zone is 5b.

Conservation Uses

Partridge pea is considered an excellent species for planting on disturbed sites for erosion control and improved soil fertility. The seed is a major food source for northern bobwhite and other quail species. The large 1 inch, yellow flowers of this species provide beautification to natural areas planted to wildflowers. The foliage is not readily eaten by domestic livestock. If consumed in large quantities livestock may die due to the cathartic substance found in leaves and seeds of partridge pea.

Area of Adaptation and Use

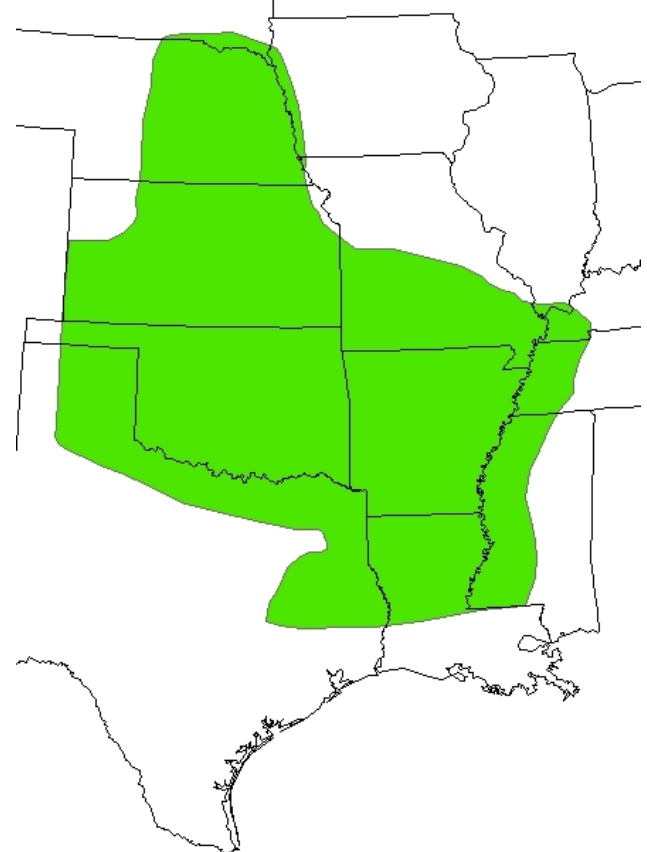


Figure 2. Area of adaptation of Riley showy partridge pea.

Establishment and Management for Conservation Plantings

A clean, firm, weed free seedbed is necessary for optimum establishment. Drill seed at ¼ to ¾ inch depth at a rate of 10 to 15 pounds of Pure Live Seed (PLS) per acre for thick monoculture stands. Scarification will improve the germination of legume seeds and use of the proper *rhizobium* (cowpea type) inoculant will provide plants with a robust growth habit. Normally a seeding rate of 2 PLS pounds per acre are sufficient within mixtures. Annual reseeding is required to maintain maximum stand density in this species. A light disking treatment will encourage partridge pea to naturally reseed itself.

Ecological Considerations

As a pioneering species, Riley will provide excellent first year coverage on sandy, course planting sites and then reseed itself in subsequent years until perennial species establish permanently on the site. Light disking in late winter encourages the natural tendency of Riley to reseed itself. The larvae of *Eurema lisa* (Pieridae: Lepidoptera) are major defoliators of *C. fasciculata* and often consume entire plants. Damage to leaf and seed pods due to grasshoppers and tortricid moth larvae are reported, but not entire plant consumption. Partridge pea was reported to be susceptible to *Cylindrocladium* black rot (*C. parasiticum*) in a seed production field in the southeastern USA in 1997.

Seed and Plant Production

Seed production of partridge pea is accomplished on a yearly basis. Production fields are established on 30 or 42 inch rows. Cultivation and warm-season grass herbicides can help with establishment. Irrigation water should be applied as needed to produce a seed crop. Seed fields can be direct harvested with a standard combine and cleaned with a fanning mill. Long term seed production at the Manhattan PMC averaged 320 bulk pounds per acre. A five-year average of seed tests indicated that Riley has an average germination of 24 percent and an average hard seed content of 50 percent. The average purity of the seed lots was 99.67 percent and the average inert was 1.33 percent.

Availability

For conservation use: Riley is generally available from commercial seed vendors.

For seed or plant increase: The Manhattan PMC maintains breeder and foundation seed. Certified seed

may be grown from foundation seed. There is no registered class of seed available.

For more information, contact:
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<http://www.plant-materials.usda.nrcs.gov>

Citation

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov/>>

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